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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/475,721	12/30/1999	MATTHEW S. REIMINK	S16.12-0094	6766

7590

02/13/2002

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EXAMINER

HON, SOW FUN

ART UNIT	PAPER NUMBER
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1772

9

DATE MAILED: 02/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/475,721

Applicant(s)

REIMINK ET AL.

Examiner

Sow-Fun Hon

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Response to Amendment

1. The U.S.C. 112, 2nd paragraph rejections in Paper # 6, paragraphs 2-3, 5-6 (mailed 09/13/01) of claims 1-20, have been withdrawn due to Application's affirmation in Paper # 7 (filed 12/13/01) of the validity of the broad interpretation of the corresponding claim limitations. Applicant failed to address the reminder in Paper # 6, paragraph 5 (mailed 09/13/01) that a crosslinked elastomer can undergo 180 degree bending and retain its elastic limit, and that it is the critical threshold of the amount of fatigue cycling under specific load-bearing conditions which causes the failure to maintain elastic recovery.
2. The U.S.C. 112, 2nd paragraph rejection in Paper # 6, paragraph 4 (mailed 09/13/01) of claim 9, have been withdrawn due to Application's amendment in Paper # 7 (filed 12/13/01).
3. The U.S.C. 112, 2nd paragraph rejection in Paper # 6, paragraph 7 (mailed 09/13/01) of claim 20, have been withdrawn due to Application's clarification in Paper # 7 (filed 12/13/01).

Rejections Repeated

4. The 35 U.S.C 102(b) rejection of claims 1-3, 5-17 as being anticipated by Pietsch et al. has been repeated for the same reasons previously of record in Paper # 6, paragraph 9 (mailed 09/13/01).

5. The 35 U.S.C 103(a) rejection of claims 18-19 over Pietsch et al. has been repeated for the same reasons previously of record in Paper # 6, paragraph 11 (mailed 09/13/01).

6. The 35 U.S.C 103(a) rejection of claim 20 over Pietsch et al. in view of Sumimoto Electric Co. has been repeated for the same reasons previously of record in Paper # 6, paragraph 12 (mailed 09/13/01).

New Rejections

Claim Rejections - 35 USC § 112

7. Claims 1-3, 5-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by the term "rigid" unless defined by some measurement.

Response to Arguments

8. Applicant's arguments in Paper # 7 (filed 12/13/01) with regards to the 102(b) and 103(a) rejections using Pietstch et al. have been fully considered but they are not persuasive.

a. With regards to newly amended claims 1-9, although Applicant has amended independent claim 1 to recite the further limitation of the polymer being rigid, the

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disclosure of the present invention teaches that crosslinking makes the polymer more “rigid” (Disclosure, page 21, lines 15-20). Pietsch et al. teaches crosslinked materials (‘461, column 4, lines 1-55) and therefore meets the claim limitation of rigidity as defined by Applicant’s specification.

b. With regards to claims 10-17, 18-19 where Applicant argues that Pietsch et al. does not disclose a composite that bends at least about 100 degrees without extending the material beyond its elastic limit, Applicant is respectfully reminded that in Paper # 6, paragraph 5 (mailed 09/13/01), it was noted that a crosslinked elastomer can undergo 180 degree bending and retain its elastic limit, and that it is *the critical threshold of the amount of fatigue cycling under specific load-bearing conditions which causes the failure to maintain elastic recovery*. While the inorganic substrate such as ceramic as recited in claim 3 may undergo catastrophic failure, or such as metal as recited in claim 2 may undergo plastic yielding, Applicant has failed to recite specific structure which would preclude the elastic recovery of the crosslinked elastomeric cover.

c. With regards to claim 20 which was rejected over Pietsch et al. in view of Sumimoto Electric Co., where Applicant argues that neither reference teaches the claimed composite, Applicant is respectfully reminded that while the inorganic substrate such as ceramic as recited in claim 3 may undergo catastrophic failure, or such as metal as recited in claim 2 may undergo plastic yielding, Applicant has failed to recite specific structure which would preclude the elastic recovery of the crosslinked elastomeric cover.

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Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Sow-Fun Hon whose telephone number is (703)308-3265. The examiner can normally be reached Monday to Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (703)308-4251. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9311.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

SH
02/11/02


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

2/12/02